

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 98/00087

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: F16C 32/06, D21G 1/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: F16C, D21G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPIL, JAPIO

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4041752 A (DOLENC ET AL), 16 August 1977 (16.08.77), column 2, line 65 - column 3, line 17, figures 1,2,3, abstract --	1-6,16,18, 19,21,22
Y	FR 1382268 A (COMPAGNIE DES ATELIERS ET FORGES DE LA LOIRE ET AL), 9 November 1964 (09.11.64), page 2, line 12 - line 45, figure 1 --	1,2
Y	US 5201586 A (ZIMMERMANN ET AL), 13 April 1993 (13.04.93) --	1-6,16,18, 19,21,22
A	US 4905598 A (THOMAS ET AL), 6 March 1990 (06.03.90) --	1-22

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

19 May 1998

Date of mailing of the international search report

28-05-1998

Name and mailing address of the ISA /

Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Dennis Stojsic

Telephone No. +46 8 782 25 00

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 98/00087

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SE 373417 B (IFIELD LABORATORIES PTY LTD), 3 February 1975 (03.02.75)  --	1-22
A	GB 1558490 A (ESCHER WYSS LIMITED), 3 January 1980 (03.01.80)  -- -----	1-22

# INTERNATIONAL SEARCH REPORT

Information on patent family members

29/04/98

International application No.

PCT/FI 98/00087

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4041752 A	16/08/77	AT 339854 B CH 587688 A DE 2507234 A JP 988283 C JP 52063145 A JP 54022417 B	10/11/77 13/05/77 26/08/76 26/02/80 25/05/77 07/08/79
FR 1382268 A	09/11/64	NONE	
US 4201586 A	13/04/93	DE 2526970 A,C FR 2274948 A,B GB 1489080 A JP 1148466 C JP 50160034 A JP 56023141 B	02/01/76 09/01/76 19/10/77 26/05/83 25/12/75 29/05/81
US 4905598 A	06/03/90	CA 1317335 A DE 3808143 A EP 0331870 A,B SE 0331870 T3 ES 2011436 T JP 1295016 A JP 1776797 C JP 4065254 B	04/05/93 21/09/89 13/09/89  01/01/94 28/11/89 28/07/93 19/10/92
SE 373417 B	03/02/75	CA 960270 A DE 2158179 A,C FR 2116141 A GB 1343518 A US 3791703 A	31/12/74 08/06/72 07/07/72 10/01/74 12/02/74
GB 1558490 A	03/01/80	AR 212707 A AT 353204 B AT 361258 B AU 510127 B AU 1967876 A BE 848861 A BR 7607992 A BR 7607995 A CA 1051962 A CA 1061388 A CH 598501 A FR 2333999 A,B FR 2334002 A,B JP 1148489 C JP 1291142 C JP 52067444 A JP 52068648 A PT 65886 B SE 428147 B,C SE 7613488 A US 4073549 A US 4149759 A	15/09/78 12/11/79 25/02/81 12/06/80 25/05/78 16/03/77 08/11/77 08/11/77 03/04/79 28/08/79 28/04/78 01/07/77 01/07/77 26/05/83 29/11/85 03/06/77 07/06/77 18/05/78 06/06/83 03/06/77 14/02/78 17/04/79

